

METHODS AND APPARATUS FOR REDUCING SIGNAL REFLECTION IN A
CIRCUIT BOARD

ABSTRACT OF THE DISCLOSURE

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A circuit board has, in a first signal layer, a signal conductor having a relatively small width and a contact pad having a relatively large width. The relatively large width of the contact pad combined with the relatively narrow signal conductor creates an impedance mismatch between the contact pad and the signal conductor. The circuit
10 board has, in a second signal layer, a ground plane separated from the first signal layer by a nonconductive layer. The circuit board defines an opening in the second signal layer underneath the contact pad. The presence of the ground plane underneath the contact pad typically affects the impedance of the contact pad. The opening in the second signal layer removes a portion the ground plane relative to the contact pad and,
15 therefore, reduces the impedance mismatch between the contact pad and the signal conductor. Such reduction in the mismatch of the impedances between the contact pad and the signal conductor minimizes signal reflection of a signal transmitted through the signal conductor and across the contact pad.